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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/684,195	10/14/2003	Tse-Peng Lin		3966

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EXAMINER

GARCIA, ERNESTO

ART UNIT PAPER NUMBER

3679

DATE MAILED: 01/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/684,195

Applicant(s)

LIN, TSE-PENG

Examiner

Ernesto Garcia

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the compressible plastic plates inserted into each channel (claim 1) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. Applicant has only shown one compressible plastic plate, which is not inserted into a channel.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "1" has been used to designate both fitting with three connectors (Fig. 1, each corner fitting has three connectors and another fitting with four connectors (Fig. 2-5).

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "3" has been used to designate steel tubes of different lengths (Fig. 1). For instance, two of the horizontal tubes are longer than the vertical tubes. A horizontal tube and a vertical tube are not the same part.

The drawings are objected to because the three of the tubes 3 appear to be solid blocks and not tubes. At least the end of each tube needs to be shown open to indicate tubular.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended". If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: "compressible plastic plates are inserted into each channel" recited in lines 3-4, and "the shape of the connectors can be rectangular, square and round to suit different tubes" recited in claim 3 are not in the specification.

Claim Objections

Claims 1-3 are objected to because of the following informalities:

regarding claim 1, a comma should be inserted after "assembly" in line 2 to indicate that the fitting comprises four connectors instead of the trolley assembly;

regarding claim 2, --a-- needs to be inserted after "between" and,

regarding claim 3, --the-- needs to be inserted after "of" in line 1. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the term "larger" in line 3 is a relative term, which renders the claim indefinite. The term "larger" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. In other words, to what are the two surfaces larger than.

Regarding claim 2, the metes and bounds of the claim is unclear. Claim 1 has stated that plates are inserted into each channel therefore two or more plates are inserted into each channel. However, claim one, in lines 1-2, states that one plate is inserted into each channel which makes uncertain whether two or more plates are in each channel or just one plate in each channel.

Regarding claim 3, the claim depends from claim 1 and therefore is indefinite.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sayres, 5,451,115, in view of Schmalzhofer et al., 6,712,540, and Reilly, 3,532,369.

Regarding claim 1, Sayres discloses, in Figure 1, a fitting comprising four connectors **46** (col. 4, lines 37-41) with two channels **68** on two large surfaces of each of the connectors **46**. However, the fitting is not made of Zn-Al die-casting, and compressible plastic plates are not inserted into each channel **68**. Applicant is reminded that the method of forming the fitting by die-casting is not germane to the issue of patentability of the fitting itself. Therefore, this limitation has been given limited patentable weight. See MPEP ' 2113. Schmalzhofer et al. teach a fitting made of Zn-Al (col. 2, lines 57-59) as part of a design consideration to prevent corrosion. Therefore, as taught by Schmalzhofer et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the fitting from Zn-Al as part of a design consideration to prevent corrosion. Reilly teaches a fitting comprising compressible plastic plates 19 inserted into each channel (the groove; col. 3, lines 3-9) to lock tubes that have a tolerance of ± 0.020 " in the inside diameter of the tubes (col. 4, lines 12-14). Therefore, as taught by Reilly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include compressible plastic plates inserted into each channel to lock tubes that have a tolerance in the inside diameter of the tubes.

Regarding claim 2, a compressible plastic plate insert into each channel will eliminate clearance between a fitting and rectangular stainless steel tubes.

Regarding claim 3, the shape of the connectors **46** can be rectangular, square, and round to suit different tubes.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ernesto Garcia whose telephone number is 703-308-8606. The examiner can normally be reached from 9:30-6:00. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9326 for regular communications and 703-872-9327 for After Final communications.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on 703-308-2686. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).



E.G.

January 26, 2005



DANIEL P. STODOLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600